Oceanic/Remote C&S Sub-project

Discussion Questions:

What we came up with ---

- What cost elements are presenting barriers to full equipage with satcom avionics capable of enabling 30/30 separation in oceanic domains?
- What are the regional differences in Oceanic ATC regimes that must be considered in developing both global and transparent oceanic solutions?
- What is the value of real-time, oceanic weather data and should it be factored into the oceanic communications solution?

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What cost elements are presenting barriers to full equipage with satcom avionics capable of enabling 30/30 separation in oceanic domains?

•What percentage of fleets need equipage?

•What is the baseline costs for HF and FANS systems?

•What are the costs for the procedures for the current system compared to changes?

•Lack of guaranteed Return of Investment; concern about commitments to implementation

•At what point does traffic growth or efficiency (altitudes) mandate changes in separation? How do we reduce costs to encourage wide equipage?

•Provide open standard for ADS, which will drive cost down

•Start at North Atlantic for ideas

•Mesh network with VHF radios instead of SatCom?

•Look at total package for benefits (ie AOC) for fuel savings, delays.

•Compare performance levels with today's systems and future systems and roadmaps for service providers.

•Look into ICAO standards for safety and service requirements for future requirements.

•How can NASA drive down costs for 70% not currently equipped or training?

•What political issues are involved in the business case preventing equipage?

•Cost of message service

•Guarantee of benefits from FAA, NAV CANADA, CAA

•Consensus of ATC organizations for benefits, incentive for equipage, disincentive for non-equipage?

•Can ground systems/runways handle increased traffic/efficiency? What alternative airports could handle increased traffic/efficiency?

•Standardized protocols/interfaces, would this help reduce costs?

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What are the regional differences in Oceanic ATC regimes that must be considered in developing both global and transparent oceanic solutions?

- ACARS/ATN interoperability over VDL-2
- Mobile Satellite Ventures (MSV) over CONUS
- Compare systems to AMSS requirements
- Separation standards are different in every region
- How do you get to most optimum separation in different regions?
- Inmarsat has a waiver to carry ATS communications, not full approval

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What is the value of real-time, oceanic weather data and should it be factored into the oceanic communications solution?

•Define timely need of weather, real-time vs. delayed, to determine benefit

•Determine bandwidth required

•Timeliness depends on phase of flight?

•Look at FAA Aviation Weather Research Program (does weather and safety for 10+ years)

•How to provide cheapest link to provide weather data globally, similar to WSI and XM radio over CONUS